

**Appendix D**  
**Power Cost Information**



## PRELIMINARY DRAFT

Appendix D contains an example electricity tariff schedule for Southern California Edison and two example spreadsheets that calculate average electrical costs per kilowatt-hour for a container ship and a passenger ship.

Electricity tariff schedules for other utility companies are similar in nature, typically containing monthly flat fees, demand charges, and energy usage charges. The spreadsheets utilize all of these charges to calculate average energy costs.

To calculate the percentage of time attributed to on-peak, mid-peak, off-peak, summer, and winter rates, staff used the timetables contained in the tariff schedules and prorated all annual hours. The allocation of hours for passenger ships differed in that these ships typically arrive in port in the morning and depart in the evening, so they use more peak hours. Staff used 6:00 a.m. to 6:00 p.m. for docking hours, seven days a week throughout the year.

Schedule TOU-8  
TIME-OF-USE - GENERAL SERVICE - LARGE

Sheet 1

APPLICABILITY

Applicable to general service including lighting and power, except agricultural water pumping accounts as described in Special Condition 12. This Schedule is applicable to and mandatory for all customers whose monthly maximum demand, in the opinion of SCE, is expected to exceed 500 kW or has exceeded 500 kW in any three months during the preceding 12 months, except that customers served on this Schedule may elect service under any applicable schedules optional hereto. Except for interruptible service customers, any existing customer on this Schedule whose monthly maximum demand has registered 500 kW or less for 12 consecutive months is ineligible for service under this Schedule (See Special Condition 10). Service under this Schedule is subject to meter availability.

TERRITORY

Within the entire territory served.

RATES

The following rates are set forth for service metered and delivered at secondary, primary, and subtransmission voltages.

SERVICE METERED AND DELIVERED AT VOLTAGES BELOW 2 KV

	Delivery Service							Gen <sup>8</sup>	
	Trans <sup>1</sup>	Distrbtn <sup>2</sup>	NDC <sup>3</sup>	PPPC <sup>4</sup>	PUCRF <sup>5</sup>	DWRBC <sup>6</sup>	Total <sup>7</sup>	URG*	DWR
Energy Charge - \$/kWh/Meter/Month									
Summer Season – On-Peak	0.00153 (I)	0.00284	0.00054	0.00518	0.00000	0.00459	0.01468 (I)	0.11736	0.07981
Mid-Peak	0.00153 (I)	0.00284	0.00054	0.00518	0.00000	0.00459	0.01468 (I)	0.04938	0.07981
Off-Peak	0.00153 (I)	0.00284	0.00054	0.00518	0.00000	0.00459	0.01468 (I)	0.00701	0.07981
Winter Season – On-Peak	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mid-Peak	0.00153 (I)	0.00284	0.00054	0.00518	0.00000	0.00459	0.01468 (I)	0.07556	0.07981
Off-Peak	0.00153 (I)	0.00284	0.00054	0.00518	0.00000	0.00459	0.01468 (I)	0.00927	0.07981
Customer Charge - \$/Meter/Month		317.58					317.58		
Demand Charge-\$/kW of Billing Demand/Meter/Month									
Facilities Related	1.26	5.76					7.02	1.76	
Time Related									
Summer Season – On-Peak		9.87					9.87	15.93	
Mid-Peak		0.84					0.84	3.30	
Off-Peak		0.00					0.00	0.00	
Winter Season – On-Peak		N/A					N/A	N/A	
Mid-Peak		0.00					0.00	0.00	
Off-Peak		0.00					0.00	0.00	
Power Factor Adjustment - \$/KVA		0.19					0.19		

\* The ongoing Competition Transition Charge (CTC) of \$0.00028 is recovered in the URG component of Generation.

<sup>1</sup> Trans = Transmission and the Transmission Owners Tariff Charge Adjustments (TOTCA) which are FERC approved. The TOTCA represents the Transmission Revenue Balancing Account Adjustment (TRBAA) of negative \$0.00089 per kWh, Reliability Services Balancing Account Adjustment (RSBAA) of \$0.00168 per kWh, (I) and Transmission Access Charge Balancing Account Adjustment (TACBAA) of \$0.00074 per kWh.

<sup>2</sup> Distrbtn = Distribution

<sup>3</sup> NDC = Nuclear Decommissioning Charge

<sup>4</sup> PPPC = Public Purpose Programs Charge (includes California Alternate Rates for Energy Surcharge where applicable.)

<sup>5</sup> PUCRF = The PUC Reimbursement Fee is described in Schedule RF-E.

<sup>6</sup> DWRBC = Department of Water Resources (DWR) Bond Charge. The DWR Bond Charge is not applicable to exempt Bundled Service and Direct Access Customers, as defined in and pursuant to D.02-10-063, D.02-02-051, and D.02-12-082.

<sup>7</sup> Total = Total Delivery Service rates that are applicable to both Bundled Service and Direct Access (DA) Customers, except DA Customers are not subject to the DWRBC rate component of this Schedule but instead pay the DWRBC as provided by Schedule DA.

<sup>8</sup> Gen = Generation – The Gen rates are applicable only to Bundled Service Customers. When calculating the Energy Charge, the Gen portion is calculated as described in the Billing Calculation Special Condition of this Schedule.

(Continued)

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Schedule TOU-8  
TIME-OF-USE - GENERAL SERVICE - LARGE

Sheet 2

(Continued)

RATES (Continued)

SERVICE METERED AND DELIVERED AT VOLTAGES FROM 2 KV THROUGH 50 KV

	Delivery Service							Gen <sup>8</sup>	
	Trans <sup>1</sup>	Distrbtn <sup>2</sup>	NDC <sup>3</sup>	PPPC <sup>4</sup>	PUCRF <sup>5</sup>	DWRBC <sup>6</sup>	Total <sup>7</sup>	URG <sup>*</sup>	DWR
Energy Charge - \$/kWh/Meter/Month									
Summer Season – On-Peak	0.00131 (l)	0.00186	0.00054	0.00500	0.00000	0.00459	0.01330 (l)	0.12419	0.07981
Mid-Peak	0.00131 (l)	0.00186	0.00054	0.00500	0.00000	0.00459	0.01330 (l)	0.05280	0.07981
Off-Peak	0.00131 (l)	0.00186	0.00054	0.00500	0.00000	0.00459	0.01330 (l)	0.01110	0.07981
Winter Season – On-Peak	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mid-Peak	0.00131 (l)	0.00186	0.00054	0.00500	0.00000	0.00459	0.01330 (l)	0.07725	0.07981
Off-Peak	0.00131 (l)	0.00186	0.00054	0.00500	0.00000	0.00459	0.01330 (l)	0.01341	0.07981
Customer Charge - \$/Meter/Month		317.96					317.96		
Demand Charge-\$/kW of Billing Demand/Meter/Month									
Facilities Related	1.31	5.29					6.60	1.87	
Time Related									
Summer Season – On-Peak		9.25					9.25	16.94	
Mid-Peak		0.78					0.78	3.28	
Off-Peak		N/A					N/A	N/A	
Winter Season – On-Peak		N/A					N/A	N/A	
Mid-Peak		0.00					0.00	0.00	
Off-Peak		0.00					0.00	0.00	
Power Factor Adjustment - \$/KVA		0.19					0.19		

- \* The ongoing Competition Transition Charge (CTC) of \$0.00026 is recovered in the URG component of Generation.
- <sup>1</sup> Trans = Transmission and the Transmission Owners Tariff Charge Adjustments (TOTCA) which are FERC approved. The TOTCA represents the Transmission Revenue Balancing Account Adjustment (TRBAA) of negative \$0.00089 per kWh, Reliability Services Balancing Account Adjustment (RSBAA) of \$0.00146 per kWh, and Transmission Access Charge Balancing Account Adjustment (TACBAA) (l) of \$0.00074 per kWh.
- <sup>2</sup> Distrbtn = Distribution
- <sup>3</sup> NDC = Nuclear Decommissioning Charge
- <sup>4</sup> PPPC = Public Purpose Programs Charge (includes California Alternate Rates for Energy Surcharge where applicable.)
- <sup>5</sup> PUCRF = The PUC Reimbursement Fee is described in Schedule RF-E.
- <sup>6</sup> DWRBC = Department of Water Resources (DWR) Bond Charge. The DWR Bond Charge is not applicable to exempt Bundled Service and Direct Access Customers, as defined in and pursuant to D.02-10-063, D.02-02-051, and D.02-12-082.
- <sup>7</sup> Total = Total Delivery Service rates are applicable to Bundled Service, Direct Access (DA) and Community Choice Aggregation (CCA) customers, except DA and CCA customers are not subject to the DWRBC rate component of this Schedule but instead pay the DWRBC as provided by Schedule DA-CRS or Schedule CCA-CRS.
- <sup>8</sup> Gen = Generation – The Gen rates are applicable only to Bundled Service Customers. When calculating the Energy Charge, the Gen portion is calculated as described in the Billing Calculation Special Condition of this Schedule.

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Schedule TOU-8  
TIME-OF-USE - GENERAL SERVICE - LARGE

Sheet 3

(Continued)

RATES (Continued)

SERVICE METERED AND DELIVERED AT VOLTAGES ABOVE 50 KV

	Delivery Service							Gen <sup>8</sup>	
	Trans <sup>1</sup>	Distrbtn <sup>2</sup>	NDC <sup>3</sup>	PPPC <sup>4</sup>	PUCRF <sup>5</sup>	DWRBC <sup>6</sup>	Total <sup>7</sup>	URG <sup>*</sup>	DWR
Energy Charge - \$/kWh/Meter/Month									
Summer Season – On-Peak	0.00115 (I)	0.00023	0.00054	0.00415	0.00000	0.00459	0.01066 (I)	0.09752	0.07981
Mid-Peak	0.00115 (I)	0.00023	0.00054	0.00415	0.00000	0.00459	0.01066 (I)	0.04656	0.07981
Off-Peak	0.00115 (I)	0.00023	0.00054	0.00415	0.00000	0.00459	0.01066 (I)	0.01834	0.07981
Winter Season – On-Peak	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mid-Peak	0.00115 (I)	0.00023	0.00054	0.00415	0.00000	0.00459	0.01066 (I)	0.06916	0.07981
Off-Peak	0.00115 (I)	0.00023	0.00054	0.00415	0.00000	0.00459	0.01066 (I)	0.02089	0.07981
Customer Charge - \$/Meter/Month		371.61					371.61		
Demand Charge-\$/kW of Billing Demand/Meter/Month									
Facilities Related	1.25	0.31					1.56	0.00	
Time Related									
Summer Season – On-Peak		6.47					6.47	14.93	
Mid-Peak		0.56					0.56	2.88	
Off-Peak		N/A					N/A	N/A	
Winter Season – On-Peak		N/A					N/A	N/A	
Mid-Peak		0.00					0.00	0.00	
Off-Peak		0.00					0.00	0.00	
Power Factor Adjustment - \$/KVA		0.17					0.17		
Voltage Discount, Demand, 220 kV - \$/kW									
Facilities Related		(0.33)					(0.33)	0.00	
Time Related									
Summer		(3.51)					(3.51)	(0.04)	
Voltage Discount, Energy, 220 kV - \$/kWh		0.00000					0.00000	(0.00042)	

\* The ongoing Competition Transition Charge (CTC) of \$0.00021 is recovered in the URG component of Generation.

1 Trans = Transmission and the Transmission Owners Tariff Charge Adjustments (TOTCA) which are FERC approved. The TOTCA represents the Transmission Revenue Balancing Account Adjustment (TRBAA) of negative \$0.00089 per kWh, Reliability Services Balancing Account Adjustment (RSBAA) of \$0.00130 per kWh, and Transmission Access Charge Balancing Account Adjustment (I) (TACBAA) of \$0.00074 per kWh.

2 Distrbtn = Distribution

3 NDC = Nuclear Decommissioning Charge

4 PPPC = Public Purpose Programs Charge (includes California Alternate Rates for Energy Surcharge where applicable.)

5 PUCRF = The PUC Reimbursement Fee is described in Schedule RF-E.

6 DWRBC = Department of Water Resources (DWR) Bond Charge. The DWR Bond Charge is not applicable to exempt Bundled Service and Direct Access Customers, as defined in and pursuant to D.02-10-063, D.02-02-051, and D.02-12-082.

7 Total = Total Delivery Service rates are applicable to Bundled Service, Direct Access (DA) and Community Choice Aggregation (CCA) customers, except DA and CCA customers are not subject to the DWRBC rate component of this Schedule but instead pay the DWRBC as provided by Schedule DA-CRS or Schedule CCA-CRS.

8 Gen = Generation – The Gen rates are applicable only to Bundled Service Customers. When calculating the Energy Charge, the Gen portion is calculated as described in the Billing Calculation Special Condition of this Schedule.

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Schedule TOU-8  
TIME-OF-USE - GENERAL SERVICE - LARGE

Sheet 4

(Continued)

RATES (Continued)

(D) (L)

SPECIAL CONDITIONS

1. Time periods are defined as follows:

On-Peak: Noon to 6:00 p.m. summer weekdays except holidays  
Mid-Peak: 8:00 a.m. to Noon and 6:00 p.m. to 11:00 p.m. summer  
weekdays except holidays  
8:00 a.m. to 9:00 p.m. winter weekdays except holidays  
Off-Peak: All other hours.

Holidays are New Year's Day (January 1), Washington's Birthday (third Monday in February), Memorial Day (last Monday in May), Independence Day (July 4), Labor Day (first Monday in September), Veterans Day (November 11), Thanksgiving Day (fourth Thursday in November), and Christmas (December 25).

See Special Condition 15 for Time Periods applicable to Qualifying Facilities.

When any holiday listed above falls on Sunday, the following Monday will be recognized as an off-peak period. No change will be made for holidays falling on Saturday.

The summer season shall commence at 12:00 a.m. on the first Sunday in June and continue until 12:00 a.m. of the first Sunday in October of each year. The winter season shall commence at 12:00 a.m. on the first Sunday in October and continue until 12:00 a.m. of the first Sunday in June of the following year.

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Schedule TOU-8  
TIME-OF-USE - GENERAL SERVICE - LARGE

Sheet 5

(Continued)

SPECIAL CONDITIONS (Continued)

2. Voltage: Service will be supplied at one standard voltage.
3. Maximum Demand: Maximum demands shall be established for the On-Peak, Mid-Peak, and Off-Peak periods. The maximum demand for each period shall be the measured maximum average kilowatt input indicated or recorded by instruments, during any 15-minute metered interval, but, where applicable, not less than the diversified resistance welder load computed in accordance with the section designated Welder Service in Rule 2. Where the demand is intermittent or subject to violent fluctuations, a 5-minute interval may be used.
4. Billing Demand: The Billing Demand shall be the kilowatts of Maximum Demand, determined to the nearest kW. The Demand Charge shall include the following billing components. The Time Related Component shall be for the kilowatts of Maximum Demand recorded during (or established for) the monthly billing period for each of the On-Peak, Mid-Peak, and Off-Peak Time Periods. The Facilities Related Component shall be for the kilowatts of Maximum Demand recorded during (or established for) the monthly billing period. However, when SCE determines the customer's meter will record little or no energy use for extended periods of time or when the customer's meter has not recorded a Maximum Demand in the preceding eleven months, the Facilities Related Component of the Demand Charge may be established at 50 percent of the customer's connected load. Separate Demand Charge(s) for the On-Peak, Mid-Peak, and Off-Peak Time Periods shall be established for each monthly billing period. The Demand Charge for each time period shall be based on the Maximum Demand for that time period occurring during the respective monthly billing period.

(D)

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Schedule TOU-8  
TIME-OF-USE - GENERAL SERVICE - LARGE

Sheet 6

(Continued)

SPECIAL CONDITIONS (Continued)

5. Power Factor Adjustment: The customer's bill will be increased each month for power factor by (T)  
the amount shown in the Rates section above for service metered and delivered at the  
applicable voltage level, based on the per kilovar of maximum reactive demand imposed by  
SCE.

The maximum reactive demand shall be the highest measured maximum average kilovar  
demand indicated or recorded by metering during any 15 minute metered interval in the month.  
The kilovars shall be determined to the nearest unit. A device will be installed on each kilovar  
meter to prevent reverse operation of the meter.

6. Temporary Discontinuance of Service: Where the use of energy is seasonal or intermittent, no (T)  
adjustments will be made for a temporary discontinuance of service. Any customer prior to  
resuming service within twelve months after such service was discontinued will be required to  
pay all charges which would have been billed if service had not been discontinued.

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Schedule TOU-8  
TIME-OF-USE - GENERAL SERVICE - LARGE

Sheet 7

(Continued)

SPECIAL CONDITIONS (Continued)

7. Supplemental Visual Demand Meter: Subject to availability, and upon written application by (T) the customer, SCE will, within 180 days, supply and install a SCE-owned supplemental visual demand meter. The customer shall provide the required space and associated wiring beyond the point of interconnection for such installation. Said supplemental visual demand meter shall be in parallel with the standard billing meter delineated in Special Condition 3 above. The readings measured or recorded by the supplemental visual demand meter are for customer information purposes only and shall not be used for billing purposes in lieu of meter readings established by the standard billing meter. If a meter having visual capability of displaying real time demand is installed by SCE as the standard billing meter, no additional metering will be installed pursuant to this Special Condition.

One of the following types of supplemental visual demand meters will be provided in accordance with provisions above at no additional cost to the customer: Dial Wattmeter or ty Electronic Demand Monitor.

If the customer desires a supplemental visual demand meter having features not available in any of the above listed meters, such as an electronic microprocessor-based meter, SCE will provide such a supplemental visual demand meter subject to a monthly charge, if the meter and its associated equipment have been approved for use by SCE. Upon receipt from the customer of a written application SCE will design the installation and will thereafter supply, install, and maintain the supplemental visual demand meter subject to all conditions stated in the first and last paragraph of this Special Condition. For purposes of computing the monthly charge, any such supplemental visual demand meter and associated equipment shall be treated as Added Facilities in accordance with Rule 2, Paragraph H, Section 1 and 2 of the tariff rules. Added investment for computing the monthly charge shall be reduced by SCE's estimated total installed cost at the customer location of the Electronic Demand Monitor offered otherwise herein at no additional cost.

SCE shall have sole access for purposes of maintenance and repair to any supplemental visual demand meter installed pursuant to this Special Condition and shall provide all required maintenance and repair. Periodic routine maintenance shall be provided at no additional cost to the customer. Such routine maintenance includes making periodic adjustments, lubricating moving parts and making minor repairs. Non-routine maintenance and major repairs or replacement shall be performed on an actual cost basis with the customer reimbursing SCE for such cost.

8. Contracts: An initial three-year facilities contract may be required where applicant requires new or added serving capacity exceeding 2,000 kVA.

(Continued)

(To be inserted by utility)

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Schedule TOU-8  
TIME-OF-USE - GENERAL SERVICE - LARGE

Sheet 8

(Continued)

SPECIAL CONDITIONS (Continued)

9. Customer-Owned Electrical Generating Facilities: (T)
- a. Where customer-owned electrical generating facilities are used to meet a part or all of the customer's electrical requirements, service shall be provided concurrently under the terms and conditions of Schedule S and this Schedule. Parallel operation of such generating facilities with SCE's electrical system is permitted. A generation interconnection agreement is required for such operation.
- b. Customer-owned electrical generating facilities used solely for auxiliary, emergency, or standby purposes (auxiliary/emergency generating facilities) to serve the customer's load during a period when SCE's service is unavailable and when such load is isolated from the service of SCE are not subject to Schedule S. However, upon approval by SCE, momentary parallel operation may be permitted to allow the customer to test the auxiliary/emergency generating facilities. A Momentary Parallel Generation Contract is required for this type of service.
10. Removal From Schedule: Customers receiving service under this Schedule whose monthly Maximum Demand has registered 500 kW or less for 12 consecutive months shall be changed to an applicable rate schedule effective with the date the customer became ineligible for service under this Schedule. This Special Condition is not applicable to customers taking service under Schedule I-6. (T)
11. Agricultural Water Pumping Accounts: Large individual water agency and other large water pumping accounts with 70% or more of the water pumped used for agricultural purposes are not eligible for service under this Schedule and must take service on an agricultural class rate schedule. (D)  
(T)

(Continued)

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Schedule TOU-8  
TIME-OF-USE - GENERAL SERVICE - LARGE

Sheet 9

(Continued)

SPECIAL CONDITIONS (Continued)

12. Qualifying Facilities Time Periods: Time Periods for power purchase payments to a (T) cogeneration or small power production source which meets the criteria for a Qualifying Facility as defined under 18 CFR, Chapter 1, part 292, subpart B of the Federal Energy Regulatory Commission regulations and whose power purchase payments are based on the time-of-use periods set forth in this Schedule, shall be as defined under Special Condition 1 herein, except that: 1) consistent with the effective dates listed in the table below, the summer season shall commence at 12:00 a.m. on June 1 and continue until 12:00 a.m. on October 1 of each year; 2) consistent with the effective dates listed in the table below, the winter season shall commence at 12:00 a.m. on October 1 of each year and continue until 12:00 a.m. on June 1 of the following year; 3) for the winter season a Super Off-Peak time period of midnight to 6:00 a.m., everyday, shall apply.

The Summer and Winter Season modifications defined above shall become effective for each Qualifying Facility based on its date of Firm Operation (or initial operation for non-firm Qualifying Facilities) as shown on the table below. Qualifying Facilities that began operation after the end of the Summer Season will be considered to have begun operation in the next year.

<u>Firm Operation</u>	<u>Effective June 1</u>
1985 and prior years	1994
1986	1993
1987	1992
1988	1992
1989	1993
1990	1994
1991	1993
1992 and years beyond	1992

Qualifying Facilities may elect, on a one-time basis, to receive metered kWh hourly deliveries rather than the above time periods. Those Qualifying Facilities not electing to make this change shall continue to receive power purchase payments for energy and capacity based on time-of-use and seasonal periods as defined above.

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TIME-OF-USE - GENERAL SERVICE - LARGE

Sheet 10

(Continued)

SPECIAL CONDITIONS (Continued)

13. Compensated Metering. This provision is applicable to service metered and delivered at voltages above 50 kV. Where customer/applicant requests and SCE agrees, SCE may install a transformer loss compensating device (Compensated Metering) acceptable to SCE in order to provide high voltage (over 50 kV) metered service. Where provided, this service will be considered as metered and delivered on SCE's side of the serving transformer. SCE shall rely on transformer loss data provided by the transformer manufacturer or transformer loss tests performed by SCE to calibrate the compensating device. Service under this provision is contingent upon customer/applicant's entering into an agreement which requires payment for the serving transformer and related substation equipment in accordance with Rule 2, Section H, Added Facilities, except where such transformer equipment is owned, operated, and maintained by the customer/applicant. Where the transformer equipment is owned, operated, and maintained by the customer/applicant, the customer/applicant is required to pay for the Compensated Metering and related equipment in accordance with Rule 2, Section H, Added Facilities, and shall also agree to provide SCE unrestricted access to the serving transformer, metering, and compensating equipment.

(D)

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Schedule TOU-8  
TIME-OF-USE - GENERAL SERVICE - LARGE

Sheet 11

(Continued)

SPECIAL CONDITIONS (Continued)

## 14. Rate Eligibility Criteria for Energy Efficiency (RECEE)

(D)  
(T)

The purpose of the RECEE is to determine a customer's continued eligibility for service under this Schedule. The RECEE is applicable to customers currently receiving service under this Schedule and who have implemented energy efficiency measures on or after June 5, 1994 which have reduced the customer's monthly Maximum Demand to 500 kW or less. The RECEE is a fixed level of demand, determined by SCE, based on the customer's permanent demand reduction resulting from the implementation of energy efficiency measures. The RECEE demand is set forth in the Energy Efficiency Declaration, Form No.16-327.

The RECEE demand plus the customer's actual demand will be evaluated each billing period for purposes of determining the customer's continued eligibility for service under this Schedule. If the RECEE demand plus the customer's actual demand equals 500 kW or less for 12 consecutive months, the customer is ineligible for service under this Schedule and ineligible for application of the RECEE. The RECEE demand will not be used for purposes of calculating the customer's demand charge.

(Continued)

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John R. Fielder  
Senior Vice President

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Schedule TOU-8  
TIME-OF-USE - GENERAL SERVICE - LARGE

Sheet 12

(Continued)

SPECIAL CONDITIONS (Continued)

15. Voltage Discount: Bundled Service and Direct Access Customers receiving service at 220 kV will have the Distribution rate component of the applicable Delivery Service charges reduced by the corresponding Voltage Discount amount for service metered and delivered at the applicable voltage level as shown in the Rates section above. In addition, Bundled Service Customers will have the Utility Retained Generating (URG) rate component of the applicable Generation charges reduced by the corresponding Voltage Discount amount for service metered and delivered at the applicable voltage level as shown in the Rates section. (C)
16. Optimal Billing Period Service: This Special Condition provides for the voluntary use of an Optimal Billing Period (OBP) which allows for a customer's billing cycle(s) to coincide with the customer's high seasonal production cycle. The customer designates the OBP by selecting a specific month and day for the start of the OBP and a specific month and day for the end of the OBP. The start and end dates must fall within the customer's high seasonal production cycle. In no event shall any revised billing period exceed 45 days or be less than 15 days. (T)
- To qualify for this option, the duration of the customer's high seasonal production cycle must be 6 months or less, and the average of the customer's monthly maximum demand during it's OBP must be at least double the average of its monthly maximum demand during it's non-OBP period. Customers may not discontinue this option before the end date of their OBP.
- Prior to receiving OBP service, the customer shall sign the "Optimal Billing Period Service Agreement," Form No. 14-689 and pay an OBP fee of \$160.00 per meter. To continue service under this Special Condition the customer must sign a new OBP Agreement and pay the OBP fee each year. (T)
17. Billing Calculation: A customer's bill is calculated according to the rates and conditions above. (D)
- Except for the Energy Charge, the charges listed in the Rates section are calculated by multiplying the Total Delivery Service rates and the Generation rates, when applicable, by the billing determinants (e.g., per kilowatt [kW], kilowatthour [kWh], kilovar [kVa] etc.), (T)
- The Energy Charge, however, is determined by multiplying the total kWhs by the Total Delivery Service per kWh rates to calculate the Delivery Service amount of the Charge. To calculate the Generation amount, SCE determines what portion of the total kWhs is supplied by the Utility Retained Generation (URG) and the Department of Water Resources (DWR). The kWhs supplied by the URG are multiplied by the URG per kWh rates and the kWhs supplied by the DWR are multiplied by the DWR per kWh rate and the two products are summed to arrive at the Generation amount. The Energy Charge is the sum of the Delivery Service amount and the Generation amount.

(Continued)

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Schedule TOU-8  
TIME-OF-USE - GENERAL SERVICE - LARGE

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SPECIAL CONDITIONS (Continued)

## 17. Billing Calculation: (Continued)

(T)

For each billing period, SCE determines the portion of total kWhs supplied by SCE's URG and by the DWR. This determination is made by averaging the daily percentages of energy supplied to SCE's Bundled Service Customers by SCE's URG and by the DWR.

- a. Bundled Service Customers receive Delivery Service from SCE and receive supply (Gen) service from both SCE's URG and the DWR. The customer's bill is the sum of the charges for Delivery Service and Gen determined, as described in this Special Condition, and subject to applicable discounts or adjustments provided under SCE's tariff schedules.
- b. Direct Access Customers receive Delivery Service from SCE and purchase energy from an Energy Service Provider. The customer's bill is the sum of the charges for Delivery Service determined as described in this Special Condition except that the DWRBC rate component is subtracted from the Total Delivery Service rates before the billing determinants are multiplied by such resulting Total rates; plus the applicable charges as shown in Schedule DA-CRS and subject to applicable discounts or adjustments provided under SCE's tariff schedules.
- c. Community Choice Aggregation (CCA) customers receive Delivery Service from SCE and purchase energy from their Community Choice Provider (CCP). SCE will read the meters and present the bill for both Delivery and Generation Services to the CCA customer. The customer's bill is the sum of the charges for Delivery Service as displayed in this Rate Schedule and Generation charges determined by the CCP plus the applicable charges as shown in Schedule CCA-CRS, and subject to applicable discounts or adjustments provided under SCE's tariff schedules.

## 18. Customers with Service Metered and Delivered at Voltages above 50 kV (Sub-transmission customers) Included in Rotating Outages.

(T)

Sub-transmission customers, except for those customers exempt from rotating outages, are to be included in controlled, rotating outages when required by the Independent System Operator (ISO). To the extent feasible, SCE will coordinate rotating outages applicable to Sub-transmission customers who are fossil fuel producers and pipeline operators and users to minimize disruption to public health and safety. SCE shall not include a Sub-transmission customer in an applicable rotating outage group if the customer's inclusion would jeopardize electric system integrity. Sub-transmission customers who are not exempt from rotating outages, and seek such exemption, may submit an Optional Binding Mandatory Curtailment (OBMC) Plan to SCE in accordance with Schedule OBMC. If SCE approves a customer's OBMC Plan, the customer will become exempt from rotating outages and will be subject to the terms and conditions of Schedule OBMC and its associated contract.

Non-exempt Sub-transmission customers shall be required to drop their entire electrical load during applicable rotating outages by either (1) implementing the load reduction on their own initiative, in accordance with subsection a, below; or (2) having SCE implement the load reduction through remote-controlled load drop equipment (control equipment) in accordance with subsection b, below. A Sub-transmission customer shall normally be subject to the provisions of subsection a. If SCE approves a customer's request to have SCE implement the load reduction or if the customer does not comply with prior required load reductions, as specified in subsection c, the customer will be subject to the provisions of subsection b.

(Continued)

(To be inserted by utility)

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Schedule TOU-8  
TIME-OF-USE - GENERAL SERVICE - LARGE

Sheet 14

(Continued)

SPECIAL CONDITIONS (Continued)

18. Customers with Service Metered and Delivered at Voltages above 50 kV (Sub-transmission customers) Included in Rotating Outages. (Continued) (T)
- a. Customer-Implemented Load Reduction. (Continued)
- (i) Notification of Required Load Reduction. At the direction of the ISO, SCE shall notify each Sub-transmission customer in an affected rotating outage group to drop its entire load. Within 30 minutes of such notification, the customer must drop its entire load. The customer shall not return the dropped load to service until 90 minutes after SCE sent the notification to the customer to drop its load, unless SCE notifies the customer that it may return its load to service prior to the expiration of the 90 minutes.
  - (ii) Method of Notification. SCE will notify Sub-transmission customers who are required to implement their own load reduction via telephone, by either an automated calling system or a manual call to a business telephone number or cellular phone number designated by the customer. The designated telephone number will be used for the sole purpose of receiving SCE's rotating outage notification and must be available to receive the notification at all times. When SCE sends the notification to the designated telephone number the customer is responsible for dropping its entire load in accordance with subsection a. (i), above. The customer is responsible for informing SCE, in writing, of the telephone number and contact name for purposes of receiving the notification of a rotating outage.
  - (iii) Excess Energy Charges. If a Sub-transmission customer fails to drop its entire load within 30 minutes of notification by SCE, and/or fails to maintain the entire load drop until 90 minutes after the time notification was sent to the customer, unless SCE otherwise notified the customer that it may return its load to service earlier in accordance with subsection a. (i) above, SCE shall assess Excess Energy Charges of \$6 per kWh for all kWh usage in excess of the Authorized Residual Ancillary Load. Such charges will be based on the total kWh usage during the applicable rotating outage penalty period, less the product of Authorized Residual Ancillary Load in kW and the applicable rotating outage penalty period in hours. Excess Energy Charges will be determined and applied by SCE subsequent to the Sub-transmission customer's regularly scheduled meter read date following the applicable rotating outage.
  - (iv) Authorized Residual Ancillary Load. Authorized Residual Ancillary Load is load that is deemed to be equivalent to five percent of the Sub-transmission customer's prior billing month's recorded Maximum Demand. This minimum load level is used as a proxy to allow for no-load transformer losses and/or load attributed to minimum grid parallel operation for generators connected under Rule 21.

(Continued)

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Schedule TOU-8  
TIME-OF-USE - GENERAL SERVICE - LARGE

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(Continued)

SPECIAL CONDITIONS (Continued)

18. Customers with Service Metered and Delivered at Voltages above 50 kV (Sub-transmission customers) Included in Rotating Outages. (Continued) (T)

b. SCE-Implemented Load Reduction.

Non-exempt Sub-transmission customers may request, in writing, to have SCE drop the customer's entire load during all applicable rotating outages using SCE's remote-controlled load drop equipment (control equipment). If SCE agrees to such arrangement, SCE will implement the load drop by using one of the following methods:

- (i) Control Equipment Installed. For a Sub-transmission customer whose load can be dropped by SCE's existing control equipment, SCE will implement the load drop during a rotating outage applicable to the customer. The customer will not be subject to the Notification and Excess Energy Charge provisions set forth in subsection a, above.
- (ii) Control Equipment Pending Installation. For a Sub-transmission customer whose load can not be dropped by SCE's existing control equipment, the customer must request the installation of such equipment at the customer's expense in accordance with SCE's Rule 2, Section H, Added Facilities. Pending the installation of the control equipment, the customer will be responsible for dropping load in accordance with the provisions of subsection a, above, including the Notification and Excess Energy Charge provisions.

- c. Non-compliance: A non-exempt Sub-transmission customer subject to subsection a, above, who fails to drop load during three rotating outages in a three year period to a demand level of 20% or less of the customer's prior billing month's recorded Maximum Demand averaged over the applicable rotating outage period, is not in compliance with this tariff. The three year period shall commence with the first failure to drop load as specified in this subsection. A customer not in compliance with this condition will be placed at the top of the Sub-transmission customer rotating outage group list and will be expected to comply with subsequent applicable rotating outages. In addition, the customer must select one of the two options below within fifteen days after receiving written notice of non-compliance from SCE. A customer failing to make a selection within the specified time frame will be subject to subsection c. (ii) below.

- (i) Subject to Schedule OBMC: The customer shall submit an OBMC Plan, in accordance with Schedule OBMC, within 30 calendar days of receiving written notice of non-compliance from SCE. Pending the submittal of the OBMC Plan by the customer and pending the review and acceptance of the OBMC Plan by SCE, the customer will remain responsible for dropping load in accordance with the provisions of subsection a, above, including the Notification and Excess Energy charge provisions. If the customer fails to submit an OBMC Plan within 30 days of receiving notice of non-compliance from SCE, or if the customer's OBMC Plan is not approved by SCE, or if the customer fails to meet the requirements of Schedule OBMC once the OBMC Plan is approved, the customer shall be subject subsection c. (ii), below.

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Schedule TOU-8  
TIME-OF-USE - GENERAL SERVICE - LARGE

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(Continued)

SPECIAL CONDITIONS (Continued)

18. Customers with Service Metered and Delivered at Voltages above 50 kV (Sub-transmission customers) Included in Rotating Outages. (Continued) (T)

c. Non-compliance: (Continued)

- (ii) Installation of Control Equipment. The customer shall be subject to the installation of control equipment at the customer's expense in accordance with SCE's Rule 2, Section H, Added Facilities, if such equipment is not currently installed. If such switching capability is installed, SCE will drop the customer's load for all applicable subsequent rotating outages in accordance with the provisions of subsection b, above. Pending the installation of control equipment, the customer will remain responsible for dropping load in accordance with the provisions of subsection a, above, including the Notification and Excess Energy Charge provisions.

d. Net-Generators

Sub-transmission customers who are also net-generators are normally exempt from rotating outages, but they must be net suppliers of power to the grid during all rotating outages. For the purpose of this Special Condition, a net-generator is an SCE customer who operates an electric generating facility as part of its industrial or commercial process, and the generating facility normally produces more electrical power than is consumed in the industrial or commercial process, with the excess power supplied to the grid. Sub-transmission customers whose primary business purpose is to generate power are not included in this Special Condition.

- (i) Notification of Rotating Outages. SCE will notify sub-transmission customers who are net-generators of all rotating outages applicable to customers within SCE's service territory. Within 30 minutes of notification, the customer must ensure it is a net supplier of power to the grid throughout the entire rotating outage period. Failure to do so will result in the customer losing its exemption from rotating outages, and the customer will be subject to Excess Energy Charges, as provided below.
- (ii) Excess Energy Charges. Net generators who are not net suppliers to the grid during each rotating outage period will be subject to Excess Energy Charges of \$6 per kWh for all kWh usage in excess of the Authorized Residual Ancillary Load. Such charges will be based on the total kWh usage during a rotating outage penalty period, less the product of Authorized Residual Ancillary Load in kW and the applicable rotating outage period hours. Excess Energy Charges will be determined and applied by SCE subsequent to the customer's regularly scheduled meter read date following the applicable rotating outage. Excess Energy Charges shall not apply during periods of verifiable scheduled generator maintenance or if the customer's generator suffers a verifiable forced outage. The scheduled maintenance must be approved in advance by either the ISO or SCE, but approval may not be unreasonably withheld.

(Continued)

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## Sample spreadsheet used to calculate electricity cost for a container ship

Tariff Schedule: SCE TOU-8

### POWER

			\$/kwh	Fraction of Use	Weighted Average	
Summer	On-Peak		0.11462	0.17	0.01949	
	Mid-Peak		0.078925	0.26	0.02052	
	Off-Peak		0.058025	0.57	0.03307	
					<b>0.07308</b>	<b>Summer</b>
Winter	Mid-Peak		0.09115	0.38	0.03464	
	Off-Peak		0.05923	0.62	0.03672	
					<b>0.07136</b>	<b>Winter</b>
Average Rate =			<b>0.07193 (\$/Kwh)</b>			

### TIME DEMAND

			\$/kw	Fraction of Use	Weighted Average	
Summer	Peak		26.19	0.17	4.45230	
	Part-Peak		4.06	0.26	1.05560	
	Off-Peak		0	0.57	0.00000	
					<b>5.50790</b>	<b>Summer</b>
Winter	Part-Peak		0	0.38	0.00000	
	Off-Peak		0	0.62	0.00000	
					<b>0.00000</b>	<b>Winter</b>
Average Rate =			<b>1.84100 (\$/Kw)</b>			

### CUSTOMER

	\$/month
	317.96
Annual costs =	<b>\$3,816</b>

### FACILITY DEMAND

	\$/kw
	8.47
Average Rate =	<b>8.47 (\$/Kw)</b>

### VESSEL INFORMATION

<u>Power Demand (MW)</u>	<u>Number of Annual Visits</u>	<u>Average Berthing Time</u>	<u>Annual Power Needs</u>
1.5	8	60	720,000 kwh/year

### TOTAL ENERGY COSTS

Power	\$51,793		
T Demand	\$33,138	Equivalent Power Rate =	<b>\$0.3350 (\$/Kwh)</b>
Customer	\$3,816		
F Demand	<u>\$152,460</u>		
	<b>\$241,206</b>		

## Sample spreadsheet used to calculate electricity cost for a passenger ship

Tariff Schedule: SCE TOU-8

POWER			\$/kwh	Fraction of Use	Weighted Average	
Summer	On-Peak		0.11462	0.42	0.04814	
	Mid-Peak		0.078925	0.28	0.02210	
	Off-Peak		0.058025	0.30	0.01741	
					<b>0.08765</b>	<b>Summer</b>
Winter	Mid-Peak		0.09115	0.69	0.06289	
	Off-Peak		0.05923	0.31	0.01836	
					<b>0.08125</b>	<b>Winter</b>
Average Rate =			<b>0.08339</b>	<b>(\$/Kwh)</b>		

TIME DEMAND			\$/kw	Fraction of Use	Weighted Average	
Summer	Peak		26.19	0.42	10.99980	
	Part-Peak		4.06	0.28	1.13680	
	Off-Peak		0	0.30	0.00000	
					<b>12.13660</b>	<b>Summer</b>
Winter	Part-Peak		0	0.69	0.00000	
	Off-Peak		0	0.31	0.00000	
					<b>0.00000</b>	<b>Winter</b>
Average Rate =			<b>4.05662</b>	<b>(\$/Kw)</b>		

CUSTOMER	\$/month
	317.96
Annual costs =	<b>\$3,816</b>

FACILITY DEMAND	\$/kw
	8.47
Average Rate =	<b>8.47 (\$/Kw)</b>

### VESSEL INFORMATION

<u>Power Demand (MW)</u>	<u>Number of Annual Visits</u>	<u>Average Berthing Time</u>	<u>Annual Power Needs</u>
11	150	10	16,500,000 kwh/year

### TOTAL ENERGY COSTS

Power	\$1,375,957	Equivalent Power Rate =	\$0.1838 (\$/Kwh)
T Demand	\$535,473		
Customer	\$3,816		
F Demand	<u>\$1,118,040</u>		
	<b>\$3,033,286</b>		